

THE PRINGLE HERBARIUM

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In the Pringle Herbarium of the University of Vermont are 335,000 specimens of plants ranging all the way from Fungi and Algae to Orchids and Compositae. While Vermont is the area by far the best represented, the specimens come from many far-scattered and remote parts of the earth. Between 5,000 and 6,000 specimens are being added each year. We believe that few botanists realize what extensive resources are available in this Herbarium for research and study. Visiting botanists have exclaimed repeatedly over the wealth of material which they have found here. "I had no idea that you had so many significant specimens," one commented. Or, "If we had only known you had such rare numbers, we should have come sooner." "I supposed this specimen was not to be seen nearer than Europe," another added. When there are such choice specimens in this herbarium, to make these resources known to the scientific world becomes almost a duty.

What proportion of our 337,000 specimens come from our own state is difficult to estimate. In view of the many sheets from other parts of the world, it cannot be large, — perhaps 1 in 10 from the state of Vermont. A County List, now being prepared by the Vermont Botanical and Bird Club, will, when published, show how wide a representation is from Vermont. That County List will include various herbaria, with symbols to indicate in which herbaria voucher specimens are to be found.

Among collectors of Vermont plants, Cyrus Guernsey Pringle still leads the list. Beginning his collecting in 1876, Vermont, especially his home town of Charlotte, was naturally the scene of his earliest as well as his latest endeavors. By his own labor and initiative, he built up the herbarium to 150,000 sheets. While the majority of these are from Mexico, he made extensive collections from his own state.

Mrs. Nellie F. Flynn assembled a massive herbarium, mostly by her own collecting, largely from the region of Burlington. Her entire herbarium is deposited with the Pringle Herbarium as a permanent loan.

Ezra Brainerd, at one time President of Middlebury College, is best known for his published studies of Violets and Blackberries. Also in the genus *Crataegus* (Hawthorns), he collected great quantities of specimens. His entire herbarium is now in the Pringle Herbarium.

Dana S. Carpenter built up a large herbarium of notable importance, mostly from Vermont, but including also much material from distant lands. D. Lewis Dutton accomplished a similar work with specimens mostly from Vermont. Both of their herbaria are now parts of the Pringle Herbarium.

A. J. Grout, most famous for his work with mosses, is another of the early collectors, thousands of whose specimens add greatly to our knowledge of the flora of Vermont.

Among others who have contributed notably to this herbarium and to our knowledge of Vermont plants, the following botanists should be mentioned. L. R. Jones, at one time Curator of this Herbarium, added many significant specimens. Sidney F. Blake, known throughout the world as an authority on the family, Compositae, contributed many specimens especially from the northwestern part of Vermont. George L. Kirk, by profession a journalist, by his keen observation added extensively to the known flora of the state. The late Leopold A. Charette contributed greatly to the knowledge of distribution records in Vermont and would have done much more if an untimely death had not cut short his botanical career. His earlier herbarium containing a large collection of plants of Japan as well as of Vermont was purchased by the Pringle Herbarium. The herbarium of Ernest L. Smith, with many choice plants of Vermont, was a gift of his daughter, Marion L. Smith.

From the other New England states, there are substantial numbers of specimens, with Maine probably leading. M. L. Fernald, John J. Cushman and Frank C. Seymour

are among the collectors there. J. W. Congdon's plants from Rhode Island include some items which probably are no longer to be found growing in that populous state. In Connecticut, collections by Arthur E. Blewitt, E. H. Eames and D. C. Eaton are notable. From Massachusetts, we have many specimens of F. F. Forbes and some of Thomas Morong, distinguished for his studies in aquatics. Mrs. Nellie F. Flynn's collections from Nantucket are remarkable not only for their quantity but for their variety. Among the large number of species are some which apparently have not been found there by any other botanist. Many specimens from New Hampshire were collected by A. S. Pease, author of "The Flora of Northern New Hampshire."

Nearly every one of the fifty states in the United States is amply represented. Among the outstanding collectors are the following: New York, *A. J. Grout*; New Jersey, *Levi J. Miller* "Halsted' American Weeds"; Pennsylvania, *J. K. Small*, *A. A. Heller*; North Carolina, *A. H. Curtiss*; Florida, *A. H. Curtiss*, *Nellie F. Flynn*; Michigan, *Frank C. Gates*; Alabama, *G. R. Vasey* and "Ex herb. C. Mohr, Mobile, Ala.," *F. S. Earle*, *C. F. Baker*; Gulf States, *S. M. Tracy*; Minnesota, *J. M. Holzinger*, *G. B. Ownbey*; Wisconsin, *T. G. Hartley*; Illinois, *C. G. Pringle*; Iowa, *Jack L. Carter*; Missouri, *B. F. Bush*, *N. C. Henderson*; Louisiana, *Nellie F. Flynn*; Texas, *J. Reverchon*, *N. C. Henderson*; Wyoming, *Aven Nelson*; Colorado, *George W. Letterman*, *C. F. Baker*, *H. N. Patterson*, *C. C. Parry*; Utah, *Marcus E. Jones*, *S. L. Welch*, *G. Moore*; Nevada, *C. F. Baker*; Arizona, *C. G. Pringle*, *Elinor Lehto*; California, *C. G. Pringle*, *Joseph P. Tracy*, *Lewis S. Rose*, *A. D. E. Elmer*, *S. B.* and *W. F. Parish*; Washington, *C. V. Piper*, *W. N. Suksdorf*, *A. D. E. Elmer*; Pacific Coast, *Thomas J. Howell*.

Many of the collectors are pioneers in their areas, so that their specimens are of special value, and often cited in literature. From Alaska, we have many specimens of William Chadsworth. Cynthia J. Bigelow has made us a

gift of her summer's collection from the Yukon. Greenland's flora, most nearly related to North America, is represented by several hundred specimens distributed by the University of Copenhagen.

Turning to areas south of the United States, from Mexico we have the very extensive collections of Pringle, himself, whom Asa Gray called "the Prince of Plant Collectors." While his specimens have been distributed far and wide to many other herbaria, it is not certain that all numbers were so distributed. We probably have many which are not to be found in any other herbarium. Since his time, our Mexican material has been augmented by specimens from other collectors such as Edward Palmer, E. Matuda, C. Conzatti, Forrest M. Shreve, D. E. Breedlove, Harde LeSueur, Elwood Molseed, Stephen S. White, and C. L. Smith.

From Central America there are specimens collected by the following: Guatemala, *H. von Türckheim* and *Charles C. Deam*; British Honduras, *P. H. Gentle*; Honduras, *C. Thieme*; Costa Rica, *C. W. Dodge*, *W. S. Thomas*, *Austin Smith*; Panama, *M. E. Davidson*, *S. Hayes*, *H. von Wedel*, *P. H. Allen*, *R. E. Woodson, Jr.*, *R. W. Schery*.

As a result of recent expeditions to Nicaragua, the 500 sheets already mounted from the largest country of Central America are only a small part of those soon to be added from the large collections distributed by Frank C. Seymour. While many numbers are being distributed to other herbaria, the unicates are being deposited in this herbarium.

From the West Indies, our largest collections are those from Guadeloupe by Pere Duss and others labeled "Herbier Capitaine." Cuba is one of the many areas from which Pringle has provided us with much material. To his have been added specimens of A. H. Curtiss.

South America is represented by important series from certain areas, such as the following: Brazil, Ex Museo Botanico Berolinensi, *Sellow*; "Flora von Mattogrosso," "Dr. Pilger," 1899; *Plantae Chilensis*, *Otto Buchtein*; Peru,

C. M. Belshaw; Colombia, *Herbert H. Smith*, *H. W. Vogelmann*.

In smaller numbers, there are specimens from nearly every other country of South America.

For an American herbarium, we have a surprisingly large number of specimens from Europe. Here are listed some of the most numerous sets. *Plantae Vasculares Dani- cae*, *Plantae Scandinavicae*, *Einar Söderén*, Jutland, *Flora Exsiccata*, *Plantae Danicae*, *Alfred Hansen*, *Plantae Sue- cicae*, *Emil Almquist*, *Plantes de France*, *E. J. Neyraud*, *Plantes de France*, *Fr. Sennen*, *Plantae France*, *C. J. Pitard*, *Herbier*, *C. Copineau*, *Plantes des Hautes Alpes*, *Herbier*, *A. Faure*, *Silicia*, *Mary F. Spencer*, *Flora Ingieae (Russia)*, *Flora Exsiccata Italica*, *Macedonia*, *Dimonie*.

At least a few thousand specimens have come from Africa including the following important series: "*Plantae Schlechterianae Occidentali-Africanae*", Ex Herbario Nata- lense, Legit *J. Medley Wood* and *M. Franks*, Cape Govern- ment Herbarium, *Austro-Africanum*, Cent. XVI, *Austro- Africanum*, Cent. XVII, *MacOwan*, *Fragmenta Florae algeriensis exsiccata*, Rec. par *Ed. Lafranc*, *Plantes de Tunisie*, *C. J. Pitard*, *Plantes d'Algerie — 1898*, *Elisee Reverchon*, "*W. Schimper pl. Abyssin.*"

The most interesting feature of the specimens from Africa and likewise from Europe is that a large number of them appear to have come from the Berlin Herbarium. Some of them are clearly so marked, as for instance nu- merous specimens from Kamerun, bearing the heading on the label: *Museum Botanicum Berolinense*. Thus the Pringle Herbarium may have the only extant duplicates of numbers which were destroyed when the Berlin Her- barium was bombed in March 1943.

The part of Asia best represented in the Pringle Her- barium is Japan. The specimens from that country were obtained by purchase of the early herbarium of Leopold A. Charette who collected many of them himself and who evidently exchanged with Japanese herbaria, as many of his specimens were collected by various Japanese botanists.

Many from India belong to the rare series bearing the label with the familiar heading, "Herb. Ind. Or. Hook. f. & Thomson" or "Flora of the Sikkim Himalaya" coll. G. A. Gammie; and others from "Herb. Hort. Bot. Calcuttensis" are significant. The Philippines are represented by a large series of the well known collections by E. D. Merrill and A. D. E. Elmer.

Even from the Antipodes come large collections by well known botanists. That the Australian continent is well represented is especially remarkable. Among those sheets are many from the "National Herbarium of New South Wales," coll. J. L. Boorman, J. H. Maiden, J. B. Cleland, and J. H. Camfield. Those from Western Australia were collected by Max Koch.

How many types are included in this herbarium is unknown. Of those already known and recognized, there are about 200. Formerly unrecognized types are frequently discovered. Most of these are collections by Pringle in Mexico.

A unique feature is the Pringle Index, compiled largely by Leopold A. Charette. It consists of about 15,000 cards, 3 × 5 inches, numerically arranged by collection numbers, each containing a note on the specimens of Cyrus Guernsey Pringle in Mexico. They have been compiled (1) from specimens in the Pringle Herbarium; (2) from many periodicals and especially monographs; (3) from the "Catalogo de Plantas Mexicanas" by Manuel Urbina; (4) and from "Ferns and Fern Allies of Chihuahua" by I. W. Knobloch and D. S. Correll. The cards give references to citations, changes in identification and often indicate by international symbols the names of herbaria where duplicates are to be found. The code symbol used internationally to designate the Pringle Herbarium is VT, obviously selected because it is the state herbarium of Vermont.

Support of the Pringle Herbarium comes from an endowment of \$35,000. The one full-time worker is the curator. Part-time assistants, usually two at a time, are selected from among the students in the University. Altho the

turnover is rather frequent, students prove to be highly capable assistants.

The first curator was none other than Dr. Pringle himself who started his herbarium apparently in 1876. It remained his private herbarium until 1902 when it was given to the University of Vermont with him continuing as curator until the time of his death in 1911. For some years thereafter the herbarium was cared for by members of the Department of Botany without a designated curator. The second curator, E. J. Dole, who filled the office for several years, was succeeded by H. W. Vogelmann from 1955 to 1971. The present incumbent, F. C. Seymour, became curator in 1971.

The Pringle Herbarium is readily accessible at 601 Main Street, Burlington, Vermont. Its brick building, formerly a weather bureau station, is set back from the street with a driveway and parking space in the rear. Qualified botanists are cordially invited to visit the Pringle Herbarium and to make use of these rich resources.

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